

Please add new claims 18-27 as follows:

18. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize triose phosphate isomerase, and wherein said nucleic acid sequence is SEQ ID NO: 11.

B2  
sub C1  
19. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize vacuolar H<sup>+</sup> translocating-pyrophosphatase, and wherein said nucleic acid sequence is SEQ ID NO: 446.

20. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize sucrose synthase, and wherein said nucleic acid sequence is SEQ ID NO: 935.

21. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize hexokinase, and wherein said nucleic acid sequence is SEQ ID NO: 1108.

22. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 1,6-bisphosphate aldolase, and wherein said nucleic acid sequence is SEQ ID NO: 2042.

23. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 6-phosphate 2-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2166.

24. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy invertase, and wherein said nucleic acid sequence is SEQ ID NO: 2252.

25. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructokinase, and wherein said nucleic acid sequence is SEQ ID NO: 2644.

**Clean Copy of All Pending Claims**

2. (Twice Amended) A substantially purified nucleic acid molecule that encodes a maize or a soybean enzyme or fragment of said enzyme, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753, wherein said enzyme is selected from the group consisting of triose phosphate isomerase, vacuolar H<sup>+</sup> translocating-pyrophosphatase, sucrose synthase, hexokinase, fructose 1,6-bisphosphate aldolase, fructose 6-phosphate 2-kinase, invertase, fructokinase, NDP-kinase, and UDP-glucose pyrophosphorylase.

7. (Reiterated) A substantially purified nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753.

8. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 11.

9. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 446.

10. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 935.

11. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 1108.

12. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2042.

13. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2166.

14. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2252.

15. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2644.

16. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2681.

17. (Reiterated) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2753.

18. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize triose phosphate isomerase, and wherein said nucleic acid sequence is SEQ ID NO: 11.

19. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize vacuolar H<sup>+</sup> translocating-pyrophosphatase, and wherein said nucleic acid sequence is SEQ ID NO: 446.

20. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize sucrose synthase, and wherein said nucleic acid sequence is SEQ ID NO: 935.

21. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize hexokinase, and wherein said nucleic acid sequence is SEQ ID NO: 1108.

22. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 1,6-bisphosphate aldolase, and wherein said nucleic acid sequence is SEQ ID NO: 2042.

23. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 6-phosphate 2-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2166.

24. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy invertase, and wherein said nucleic acid sequence is SEQ ID NO: 2252.

25. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructokinase, and wherein said nucleic acid sequence is SEQ ID NO: 2644.

26. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy NDP-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2681.

27. (New) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy UDP-glucose pyrophosphorylase, and wherein said nucleic acid sequence is SEQ ID NO: 2753.